

WHAT IS CLAIMED IS:

1. A processing system for processing building structural components constituting a building structure, said processing system comprising:

a first station comprising:

an input means for inputting at least shape data and relative position data of said building structural components;

a two-dimensional diagram constructing means for constructing a two-dimensional diagram, wherein said two-dimensional diagram constructing means first constructs a virtual three-dimensional model of said building structural components based on said various data inputted from said input means and also supplemental data arranged in a CAD program, and then constructs said two-dimensional diagram by projecting selected building structural components, which are selected from said building structural components of said virtual three-dimensional model, onto a plane;

a display means for displaying said two-dimensional diagram constructed by said two-dimensional diagram constructing means on a display screen;

a storage means for storing CAD data for constructing said virtual three-dimensional model constructed by said two-dimensional diagram constructing means; and

a strength computing means for computing strengths of said selected building structural components based on said CAD data retrieved from said storage means; and

a second station comprising a processing means for processing each of said building structural components based on said CAD data retrieved from said storage means, wherein said processing means is interconnected with said first station through a communication line.

2. A processing system for processing building structural components according to claim 1, wherein said first station further comprises a cost estimating means for estimating costs of said building structural components based on said CAD data retrieved from said storage means.

3. A processing system for processing building structural components according to claim 1 or 2, wherein said strengths are grouped into a plurality of different bands based on magnitudes of said strengths, wherein each of said strength level display modes is assigned to each of said corresponding bands.

4. A processing system for processing building structural components according to any one of claims 1 to 3, wherein said two-dimensional diagram constructing means projects a cross section of said virtual three-dimensional model onto said plane, wherein said cross section of said virtual three-dimensional model is obtained by cutting said virtual three-dimensional model at a desired position.

5. A processing system for processing building structural components according to any one of claims 1 to 4, wherein said strength level display modes are colors provided in said two-dimensional diagram.

6. A processing system for processing building structural components constituting a building structure, said processing system comprising:

a first station comprising:

an input means for inputting at least shape data and relative position data of said building structural components;

a two-dimensional diagram constructing means for

constructing a two-dimensional diagram, wherein said two-dimensional diagram constructing means first constructs a virtual three-dimensional model of said building structural components based on said various data inputted from said input means and also supplemental data arranged in a CAD program, and then constructs said two-dimensional diagram by projecting selected building structural components, which are selected from said building structural components of said virtual three-dimensional model, onto a plane;

a display means for displaying said two-dimensional diagram constructed by said two-dimensional diagram constructing means on a display screen;

a storage means for storing CAD data for constructing said virtual three-dimensional model constructed by said two-dimensional diagram constructing means; and

a cost estimating means for estimating costs of said building structural components based on said CAD data retrieved from said storage means; and

a second station comprising a processing means for processing each of said building structural components based on said CAD data retrieved from said storage means, wherein said processing means is interconnected with said first station through a communication line.

7. A processing system for processing building structural components according to claim 6, wherein said first station further comprises a strength computing means for computing strengths of said selected building structural components based on said CAD data retrieved from said storage means.

8. A processing system for processing building structural components according to claim 7, wherein said strengths are grouped into a plurality of different bands based on magnitudes of said strengths, wherein each of said strength

level display modes is assigned to each of said corresponding bands.

9. A processing system for processing building structural components according to any one of claims 6 to 8, wherein said two-dimensional diagram constructing means projects a cross section of said virtual three-dimensional model onto said plane, wherein said cross section of said virtual three-dimensional model is obtained by cutting said virtual three-dimensional model at a desired position.

10. A processing system for processing building structural components according to any one of claims 6 to 9, wherein said strength level display modes are colors provided in said two-dimensional diagram.

11. A processing system for processing building structural components according to any one of claims 2 to 10, wherein said costs estimated by said cost estimating means are different from actual costs of said building structural components that are computed based on actual shape data of said respective building structural components.